

JUKI

LOWEST COST OF OWNERSHIP

JUKI CUBE.460 Selective Soldering System



Everything you need for lead-free production setting new standards for productivity, flexibility and reliability.

www.jukiamerica.com

JUKI CUBE.460

Entry Level Selective Soldering System

Key Features of CUBE.460



Juki would like to introduce our new, low cost selective soldering system. This unique batch platform offers excellent flexibility for through-hole applications. The lower cost and smaller footprint utilizes the same soldering technology found on Juki's larger platforms while offering a superior ROI of 6-12 months.

Accessibility to the CUBE.460 is very simple allowing for easy setup and easy maintenance. The solder pot and nozzles are ready for lead-free production. Changing the solder pot for use with a different alloy is made simple with the easy to use trolley system. A wide range of standard nozzles, special nozzles as well as an eight inch chip turbulent wave are available for this machine giving it the same flexibility as the previous JUKI machines.

The flexible programming software is identical whether you are programming on the machine during production or on an off-line programming location. This makes programming easy and simple.

Finally, when you purchase a CUBE.460 you are in good hands with the Juki service and support team which is the largest in the Americas. Here is a list of what comes with the purchase of your machine:

- One week of on-site installation and training
- One year parts and labor warranty
- No charge for attendance at any regularly scheduled training course at Juki facilities
- Free machine software upgrades for life of machine
- Free 24 hour phone support

CUBE.460 Standard Features:

- 100 lb. Pb free ready solder pot / 110 lb. tin lead
- Heated Nitrogen at the soldering nozzle
- Large maximum board size up to 460mm x 460mm (18" x 18")
- 0° or 7° solder angle
- Built shuttle loading system to maintain constant production
- Fast reacting Quartz IR bottom side pre-heater
- Live process viewing camera
- Micro-Dot Drop-Jet fluxing system with 5 liter pressurized flux container
- Off-line programming s/w
- Packaged in a small footprint of 1430mm x 1550mm x 1250mm (56" x 61" x 49")
- Single nozzle or dual nozzle configuration

CUBE.460 Options:

- Additional solder pot for multiple alloys
- Wave height monitor
- Closed loop solder wire replenishing system
- 8" chip wave
- Specialty nozzles
- Top side maintenance/pre-heat
- Electromagnetic solder pot/pump assembly
- Spray Fluxer
- Automatic fiducial correction
- Board warpage control
- Exchangeable solder pot trolley systems to support dual alloys

Automatic Solder Wire Feeder Replenishing System (optional)

A closed loop system will monitor the solder level. The solder wire feeder will automatically feed more solder into the bath as needed.

Solder Wave Monitoring System (optional)

This includes an optional RPM sensor to ensure constant, precise flow of the wave.

Live Process Viewing Camera (standard)

The process camera gives a real-time view of the soldering process for improved quality control.

High Performance Bottom-side Pre-heater (standard)

Fast reacting Quartz IR emitters that offer complete control of the pre-heat process.

(2) Universal PCB Carriers for up to 460mm x 460mm (standard)

Universal carriers can be set up for a single PCB or multiple PCB's for step and repeat.

Quick Exchange Mini-wave Soldering Nozzle (standard)

Various types of nozzles including wetted, non-wetted, and specialty nozzles are available.

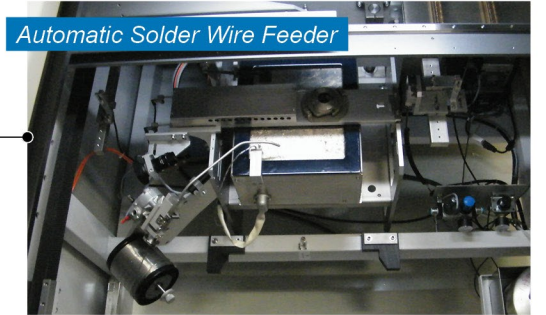
Soldering at 0° and 7° (standard)

Support for 0° and 7° soldering angles means difficult layouts can often be achieved with ultra-narrow clearances.

Solder Pot Trolley System for Quick Change Between Alloys (optional)

Going from Pb to Pb free is simple and fast with our specially designed trolley.

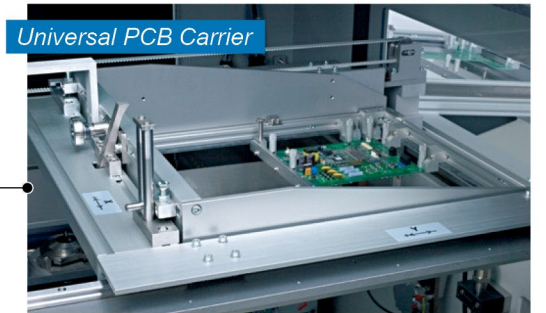
Automatic Solder Wire Feeder



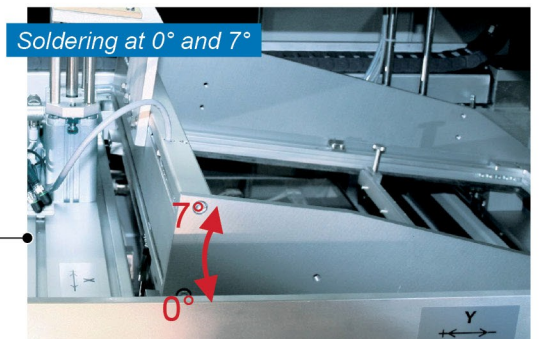
High Performance Bottom-side Pre-heater



Universal PCB Carrier



Soldering at 0° and 7°



Solder Pot Trolley System



JUKI CUBE.460 Specifications

Machine Specification — Standard Option

Dimensions with shuttle	L 2000mm; W 1550mm; H 1250mm (78.7" x 61" x 49.2")	<input checked="" type="checkbox"/>
Weight	Approximately 800 kg (1760 lbs.)	<input checked="" type="checkbox"/>
Color	RAL7035; RAL7021	<input checked="" type="checkbox"/>
Exhaust opening	Ø 150mm (6")	<input checked="" type="checkbox"/>
Extraction rate	400m ³	<input checked="" type="checkbox"/>
Power requirements	32A*, 208VAC 3 Phase, 50/60Hz, 6kW	<input checked="" type="checkbox"/>

System control

Control concept	Machine control PC and PLC	<input checked="" type="checkbox"/>
UPS	Optional	<input type="checkbox"/>
PC	Windows® PC; Flat screen monitor; keyboard; mouse	<input checked="" type="checkbox"/>
Off-line software	Off-line software for easy programming	<input checked="" type="checkbox"/>
Camera	Live process viewing camera	<input checked="" type="checkbox"/>
Axis movement	Servo controlled with high performance belts and lead screws	<input checked="" type="checkbox"/>
Drive concept	DC Servo motors with encoders; CAN-BUS	<input checked="" type="checkbox"/>
Repeatability	± 0.15mm (± 0.006")	<input checked="" type="checkbox"/>

Board size

Dimensions min./max.	20mm x 20mm / 460mm x 460mm (0.79" x 0.79" / 18" x 18")	<input checked="" type="checkbox"/>
Soldering angle	0° or 7°	<input checked="" type="checkbox"/>
Bottom side clearance	30mm (1.2")	<input checked="" type="checkbox"/>
Top side clearance	150mm (6")	<input checked="" type="checkbox"/>
Carrier	Universal (2)	<input checked="" type="checkbox"/>

Flux System

Flux head	Micro-Dot Drop-Jet	<input checked="" type="checkbox"/>
	Spray Fluxer	<input type="checkbox"/>
Flux	Alcohol based — less than 5% solids recommended (Micro-Dot Drop-Jet) Alcohol based — less than 26% solids recommended (Spray Fluxer)	<input checked="" type="checkbox"/>
Flux container	5 liters pressurised pot with level indicator Second flux pot for different flux type available	<input checked="" type="checkbox"/>

Pre-heat

Type	Bottom Side — Quartz IR emitters	<input checked="" type="checkbox"/>
Power	4 KW	<input type="checkbox"/>
Top side Maintenance/Pre-heater	Built in over the PCB	<input type="checkbox"/>

Solder Pot

Alloy	Tin Lead or Lead free	<input checked="" type="checkbox"/>
Volume lead free	45 kg	<input checked="" type="checkbox"/>
Volume tin lead	50 kg	<input checked="" type="checkbox"/>
Extra mini wave module	Individual functioning nozzles with different sizes for ultimate flexibility	<input type="checkbox"/>
Standard nozzle	Ø4mm – Ø20mm (0.15" – 0.79")	<input type="checkbox"/>
Wetted nozzle	Ø4mm – Ø20mm (0.15" – 0.79")	<input type="checkbox"/>
Warm up time	Approximately 45 minutes	<input checked="" type="checkbox"/>
Solder temperature	Maximum 330°C	<input checked="" type="checkbox"/>
Solder temperature and height	Program controlled	<input checked="" type="checkbox"/>
Solder wire	Motorized feed, 2mm (0.08") diameter, max. weight 5 kg (11 lbs.)	<input type="checkbox"/>
Nitrogen supply	Recommended 10 PPM (99.999%) purity Minimum 100 PPM (99.99%) purity	<input checked="" type="checkbox"/>
Nitrogen consumption	Max. 40 liter/minute Single Nozzle / Max. 80 liter/minute Dual Nozzle	<input checked="" type="checkbox"/>
Electro-dynamic solder pump	Alternative to standard rotary drive pump	<input type="checkbox"/>
Wave module – 200mm (7.87")	Option for a 200mm (7.87") wide solder wave module	<input type="checkbox"/>

*Specifications subject to change



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